

Serial No.: 09/681,835

Attorney Docket No: MCS-070-00

REMARKS

In response to the Office Action dated December 12, 2005, claim 24 has been canceled and claims 1, 3, 18, 25, and 31 have been amended. Therefore, claims 1-23 and 25-34 are now in the case. In light of the amendments and arguments set forth herein, reexamination and reconsideration of the application are requested.

Oath/Declaration

The Office Action indicated that the Applicants are required to submit an executed oath or declaration in compliance with 37 C.F.R. 1.67(a), as the record does not show any executed oath or declaration being submitted.

In response, attached herewith is a copy of the executed declaration and power of attorney.

Section 103(a) Rejections

The Office Action rejected claims 1-34 under 35 U.S.C. § 103(a) as being unpatentable over Gutta et al. (U.S. Patent Application Publication No. US 2002/0101505 A1) in view of Martin et al. (U.S. Patent No. 5,877,801).

Regarding independent claims 1, 18, and 31, the Office Action contended that Gutta et al. disclose all elements of the Applicants' claimed invention except that "Gutta '505 is silence in regards to, a virtual director and set of expert video production rules that selects a current camera view from the multiple camera views." However, the Office Action maintained that "such features are well known and used in the prior art of the record as evidenced by Martin (i.e. col. 1, lines 45-51, cols. 3-4, lines 34-48), wherein teaches a method for omni-directional image viewing at a remote location having a user interface, as a virtual director (fig. 1, 38) for allowing a viewer to select different views. Therefore, the Office Action maintained that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Gutta et al. using the teachings of Martin et al.

Serial No.: 09/681,835

Attorney Docket No: MCS-070-00

In response, the Applicants respectfully traverse these rejections. In general, the Applicants submit that the combination of Gutta et al. and Martin et al. is lacking at least one element of the Applicants' claimed invention. More specifically, combination of Gutta et al. and Martin et al. does not disclose, either explicitly or implicitly, the material claimed feature of a virtual director that uses probabilistic rules and expert video production rules to select a current camera view.

Further, the combination of Gutta et al. and Martin et al. fails to appreciate the advantages of this claimed feature. In addition, there is no technical suggestion or motivation disclosed in Gutta et al. or Martin et al. to define this claimed feature. Thus, the Applicants submit that the combination of Gutta et al. and Martin et al. cannot make obvious the Applicants' claimed feature of a virtual director that uses probabilistic rules and expert video production rules to select a current camera view.

To make a prima facie showing of obviousness, all of the claimed features of an Applicant's invention must be considered, especially when they are missing from the prior art. If a claimed feature is not disclosed in the prior art and has advantages not appreciated by the prior art, then no prima facie showing of obviousness has been made. The Federal Circuit Court has held that it was an error not to distinguish claims over a combination of prior art references where a material limitation in the claimed system and its purpose was not taught therein. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Moreover, as stated in the MPEP, if a prior art reference does not disclose, suggest or provide any motivation for at least one claimed feature of an Applicant's invention, then a prima facie case of obviousness has not been established (MPEP § 2142).

Independent Claims 1, 8 and 29

Amended independent claim 1 of the Applicants' claimed invention includes an automated video production system for online publishing of a lecture. The system includes a camera system that provides multiple camera views of the lecture. The system further includes a virtual director that uses probabilistic rules to select a current camera

Serial No.: 09/881,835

Attorney Docket No: MCS-070-00

view from the multiple camera views and is capable of changing the current camera view by switching between the multiple camera views in response to a triggering event, and a set of expert video production rules that is applied by the virtual director to select the current camera view.

Amended independent claim 18 of the Applicants' claimed invention includes a method for automatically producing a video of a lecture for online publishing. The method includes providing a set of expert video production rules, and capturing the lecture using a camera system that includes multiple camera views. The method further includes using the set of expert video production rules to determine a current camera view from the multiple camera views, when the current camera view should change, and to which of the multiple camera views the current camera view should change based on a probabilistic approach that uses a probabilistic transition matrix constricted by the expert video production rules such that a next current camera view is a weighted random choice.

Amended independent claim 31 of the Applicants' claimed invention includes an automated video production system for capturing images of a scene. The system includes an audience-tracking camera that provides images of an audience within the scene, and a lecturer-tracking camera that non-intrusively tracks a lecturer within the scene. The system further includes a set of expert video production rules containing video production constraints, and a virtual director module that receives multiple camera views from the audience-tracking camera and the lecturer-tracking camera and use the set of expert video production rules and probabilistic rules to select a current camera view from the multiple camera views such that the current camera view is a weighted random choice.

The Applicants' claimed invention includes a virtual director that uses both "probabilistic rules and the expert production rules to determine the current camera view" (specification, paragraph [0016], lines 7-8). The claimed invention uses a "probabilistic transition matrix constricted by expert video production rules to select the current camera view. Thus, the camera selected as the next current camera view is a weighted random

Serial No.: 09/881,835

Attorney Docket No: MCS-070-00

choice" (specification, paragraph [0016], lines 12-14).

In contrast, neither Gutta et al. nor Martin et al. disclose or suggest this claimed feature of the Applicants' invention. Gutta et al. merely disclose using audio techniques, video techniques, or both, to find a current speaker or a predicted next speaker. Martin et al. merely disclose an omni-directional image viewing system. However, nowhere do Martin et al. or Gutta et al. discuss the Applicants' claimed feature of a virtual director that uses probabilistic rules and expert video production rules to select a current camera view.

The combination of Gutta et al. and Martin et al. merely indicates when a person will likely begin or stop speaking. If, for example, two people are speaking rapidly back and forth, the combination would rapidly switch back and forth between whoever was speaking. Of course, however, this would provide a user with a poor viewing experience. Conversely, in this example, the Applicants' claimed virtual director that uses probabilistic rules and expert video production rules to select a current camera view would not blindly switch rapidly between the two, because this would violate the expert video production rules.

Consequently, no motivation or suggestion for this feature of the Applicants' claimed invention is provided. Absent this motivation or suggestion, the combination of Gutta et al. and Martin et al. cannot render the Applicants' claimed invention obvious (MPEP § 2143.01).

Gutta et al. and Martin et al. also both fail to appreciate or recognize the advantages of the Applicants' claimed virtual director that uses probabilistic rules and expert video production rules to select a current camera view. In particular, "[U]nlike other types of automated video production techniques that merely use a simplistic fixed rotation to select the current camera view, the present invention uses a probabilistic transition matrix constricted by expert video production rules to select the current camera view. Thus, the camera selected as the next current camera view is a weighted random choice. This enables the automated video production system and method of

Serial No.: 08/681,835

Attorney Docket No: MCS-070-00

the present invention to produce a more aesthetically pleasing and professional video production without the expense of human video production team" (specification, paragraph [0016], lines 10-17). The combination of Gutta et al. and Martin et al. does not discuss or appreciate these advantages of the Applicants' claimed feature.

The Applicants, therefore, submit that obviousness cannot be established since the combination of Gutta et al. and Martin et al. fails to teach, disclose, suggest or provide any motivation for the Applicants' claimed feature of a virtual director that uses probabilistic rules and expert video production rules to select a current camera view. In addition to explicitly lacking this feature, the combination also fails to implicitly disclose, suggest, or provide motivation for this feature. Further, the combination fails to appreciate advantages of this claimed feature.

Therefore, as set forth in *In re Fine* and MPEP § 2142, Gutta et al. and Martin et al., either alone or in combination, cannot render the Applicants' claimed invention obvious because the references are missing at least one material feature of the Applicants' claimed invention discussed above. Consequently, because a prima facie case of obviousness cannot be established due to the lack of "some teaching, suggestion, or incentive supporting the combination", the rejection must be withdrawn. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984); MPEP 2143.01.

Accordingly, the Applicants respectfully submit that amended independent claims 1, 18, and 31 are patentable under 35 U.S.C. § 103(a) over Gutta et al. in view of Martin et al. based on the legal and technical arguments set forth above and below. Moreover, claims 2-17 depend from amended independent claim 1, claims 19-23 and 25-30 depend from amended independent claim 18, and 32-34 depend from amended independent claim 31, and are also nonobvious over Gutta et al. in view of Martin et al. (MPEP § 2143.03). The Applicants, therefore, respectfully request reexamination, reconsideration and withdrawal of the rejection of claims 1-34.

Serial No.: 09/881,835

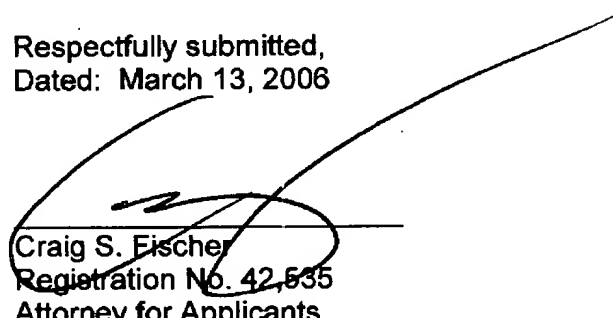
Attorney Docket No: MCS-070-00

Conclusion

In view of the arguments set forth above, the Applicants submit that claims 1-23 and 25-34 are in condition for immediate allowance. The Examiner, therefore, is respectfully requested to withdraw the outstanding rejections of the claims and to pass all of the claims of this application to issue.

In an effort to expedite and further the prosecution of the subject application, the Applicants kindly invite the Examiner to telephone the Applicants' attorney at (805) 278-8855 if the Examiner has any comments, questions or concerns, wishes to discuss any aspect of the prosecution of this application, or desires any degree of clarification of this response.

Respectfully submitted,
Dated: March 13, 2006



Craig S. Fischer
Registration No. 42,535
Attorney for Applicants

LYON & HARR, L.L.P.
300 East Esplanade Drive, Suite 800
Oxnard, CA 93036-1274
Tel: (805) 278-8855
Fax: (805) 278-8064